Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Expanding Flexible Use of the 3.7 to 4.2 GHz Band	)	GN Docket No. 18-122
	)	
Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz	)	GN Docket No. 17-183 (Inquiry Terminated as to 3.7-4.2 GHz)
	)	
Petition for Rulemaking to Amend and Modernize Parts 25 and 101 of the Commission's Rules to Authorize and Facilitate the Deployment of Licensed Point-to-Multipoint Fixed Wireless Broadband Service in the 3.7-4.2 GHz Band	)	RM-11791
	)	
Fixed Wireless Communications Coalition, Inc., Request for Modified Coordination Procedures in Band Shared Between the Fixed Service and the Fixed Satellite Service	)	RM-11778

COMMENTS OF QVC, INC. AND HSN, INC.

QVC, Inc. and HSN, Inc. (collectively, "QVC/HSN") respectfully submit these comments in response to the above-captioned Federal Communications Commission ("FCC" or "Commission") Notice of Proposed Rulemaking ("NPRM") soliciting feedback on proposals to permit terrestrial mobile use of the 3700-4200 MHz band (the "C-band"),[1] currently used for the reliable satellite delivery of video programming and other content to multichannel video programming distributors ("MVPDs"), broadcasters and others for distribution to viewers and listeners throughout the nation.

[1] *Expanding Flexible Use of the 3.7-4.2 GHz Band*, Order and Notice of Proposed Rulemaking, GN Docket No. 18-122, FCC 18-91 (rel. July 13, 2018).

QVC/HSN recognize the growing demand for spectrum-based services and the Commission's goal to make mid-band spectrum, such as the C-band spectrum, available for 5G and other terrestrial wireless broadband services. At the same time, QVC/HSN urge the Commission to: (1) recognize that C-band content distribution services provided by satellite operators are essential to the delivery of video programming services such as those of QVC/HSN; (2) ensure that any market-based approach that the Commission may adopt, including the one modeled on proposals from Intel Corporation ("Intel"), Intelsat License LLC ("Intelsat") and SES Americom, Inc. ("SES"),[2] (a) include guaranteed protections for displaced C-band content distribution services, along with a clear-cut timetable of no less than 60 months to allow QVC/HSN and other video programmers sufficient time to transition their programming distribution platforms without disruption, and (b) reallocate no more than 200 MHz of C-band spectrum (including a guard band) to terrestrial wireless services as now proposed by the CBA in its revised proposal;[3] and (3) reject the proposed expansion of new fixed point-to-multipoint ("P2MP") services throughout the C-band and associated proposed limits on full-band, full-arc protection for satellite earth stations.[4]

I. BACKGROUND

QVC/HSN currently operate six video programming channels in the United States – QVC, QVC2, QVC Over-the-Air, BeautyiQ, HSN, and HSN2. QVC and HSN are brands of the Qurate Retail Group, which is #1 in video commerce, and is a leader in ecommerce and mobile

[2] *See* NPRM ¶¶ 66-97. Since adoption of the NPRM, Intelsat and SES, together with Eutelsat and Telesat, have formed the C-Band Alliance ("CBA"), which is now the proponent of the market-based proposal to clear portions of the C-band spectrum for 5G services originally proposed by Intelsat and SES.

[3] *See C-Band Alliance Proposal Fact Sheet: October 22 Update*, C-Band Alliance (October 22, 2018) (increasing the proposed amount of reallocated C-Band spectrum from 160 MHz to 200 MHz including a 20 MHz guard band). *See also* CBA Notice of Ex Parte Communication, GN Docket Nos. 17-183 & 18-122 (October 23, 2018).

[4] *See* NPRM ¶¶ 37-40 & 116-132.

commerce.[5] QVC and HSN programming is distributed to over 100 million homes in the United States. QVC and HSN offer, on average, over 150 hours of live shopping programming per day, worldwide.

QVC/HSN provide customers with a wide variety of innovative and contemporary beauty, fashion, electronic, and home products. In 2017, QVC and HSN generated approximately $8.5 billion in revenue and shipped more than 170 million items. Because the reach of their programming is limited only by the capabilities of their distribution platform technologies including C-band services, QVC/HSN are able to provide unparalleled televised home shopping services to a broad swath of consumers throughout America, including those who reside in rural communities and remote areas; who have limited access to traditional brick-and-mortar stores; or who are unable to shop during regular business hours.

QVC/HSN's multiple video programming channels are primarily carried on cable, satellite, other MVPD platforms, and over-the-air broadcast. QVC/HSN's shopping programming and exclusive product showcase lineup are hosted primarily on the SES 3 satellite on transponders in the lower and mid-band portion of the C-band. As discussed below, the continued, uninterrupted access to the C-band remains critical to QVC/HSN's business.

[5] Qurate Retail Group comprises seven leading retail brands — QVC, HSN, zulily, Ballard Designs, Frontgate, Garnet Hill and Grandin Road — all dedicated to providing a 'third way to shop,' beyond transactional ecommerce or traditional brick-and-mortar stores.

II. DISCUSSION

A. Protected C-Band Satellite Operations Remain Essential for Video Programming Services Provided to Hundreds of Millions of Americans, and Current Alternatives, Including Co-Frequency Sharing, are not Viable Options in the Short Term

QVC/HSN agree with comments in the record indicating that the C-band downlink band is the backbone of the infrastructure that content companies use to supply consumers across the country with premium video programming.[6] Essentially, all national video programming, regardless of how it ultimately is received by the viewing public, is distributed over satellites in the C-band that have full coverage to the contiguous United States.[7] QVC/HSN significantly rely on uninterrupted access to C-band services for continuity of service and to reach their distributors and customers in all geographic areas across the United States.[8] Any disruption in the current C-band operating environment would not only have an immediate and substantial impact on QVC/HSN sales-driven activity and associated revenues, but also would deprive their customers of the retail services upon which they rely.

The reliability, quality, cost efficiency, and ubiquitous coverage offered by C-band currently is unmatched by fiber technologies or other satellite spectrum such as Ku-band. At this time, the feasibility of fiber as an alternative for the distribution of QVC/HSN's services is limited based on availability and cost. Though available in the top markets (e.g., markets served by the top 10 cable MSOs), fiber simply is not available or is prohibitively costly to deploy in the many rural and remote area markets that QVC/HSN currently serve. These rural areas also are unlikely to have fiber sufficiently deployed during the transition timeframe contemplated in the

[6] *Notice and Opportunity for Public Comment under Section 605(b) of the MOBILE NOW Act*, GN Docket No. 18-122, Joint Comments of Intel, Intelsat and SES, 3 (May 31, 2018).

[7] *Id*.

[8] QVC/HSN have made substantial investments in C-band facilities to expand and update their distribution networks to maximize access to its programming content and services.

record.[9] Additionally, Ku-band satellite spectrum is entirely unreliable with its susceptibility to attenuation and rain fade, making it a particularly poor alternative for video programming distribution, where a continuous and reliable signal is critical. A sudden and involuntary transition from C-band satellites also would strand the investments QVC/HSN have made in the ground stations and other satellite-based facilities used for content distribution.

Moreover, QVC/HSN agree with comments suggesting that co-frequency sharing in the C-band between terrestrial mobile services and satellite operations would not be feasible.[10] As the NPRM recognizes, because signals from satellites are very weak when they reach the ground, terrestrial mobile operations could cause harmful interference to earth stations over large distances,[11] making any sort of co-channel sharing wholly unworkable. Any risk of interference to the C-band satellite services on which QVC/HSN rely is unacceptable, not only from a business revenue perspective, but because it jeopardizes the ability of American consumers to receive the programming content they want and upon which they rely.

B. Provided There Are Guaranteed Protections for Displaced C-Band Operations with an Adequate Transition Timeline, QVC/HSN Support the Market-Based Transition Facilitator Proposal

Of the various proposals raised in the NPRM,[12] QVC/HSN believe that a market-based mechanism would be preferable and more practical for facilitating transition of a portion of the C-band to 5G, to a Commission-based approach (e.g., auction or hybrid mechanisms), provided there is sufficient Commission oversight to ensure that the facilitator has satisfied its

[9] Intel, Intelsat, and SES, and now the C-Band Alliance, have claimed that a consortium approach could result in secondary market-based transactions for mobile services in the C-band within 18 to 36 months of a Commission order. *See* Intel-Intelsat-SES April 20, 2018 *Ex Parte* Letter, GN Docket No. 17-183, WTB Docket No. 18-122, at 1. *See also* C-Band Alliance Notice of Written Ex Parte Presentation, GN Docket No. 17-183, WTB Docket No. 18-122, Attachment A.

[10] Joint Comments of Intel, Intelsat and SES at 4-6.

[11] *See* NPRM ¶ 50.

[12] *See* NPRM ¶¶ 58-115.

commitments to affected programmers and their customers. The other Commission-based approaches would not mitigate disruptions to the operations of impacted C-band users and likely would impose high transactional costs directly on C-band users.

QVC/HSN and the MVPDs, broadcasters, and content delivery companies that are instrumental in the distribution of QVC/HSN's content, have substantial experience working with satellite operators. Indeed, most (if not all) have existing commercial arrangements subject to ongoing obligations, terms and conditions. Accordingly, a consortium of satellite operators comprising the Transition Facilitator would be more optimally positioned to protect and work with QVC/HSN and other incumbent users than a Commission-based mechanism. We urge the Commission, to the extent it proceeds with repurposing a portion of the C-band, to move forward with the market-based solution discussed in the NPRM.[13]

The CBA recently announced its formation and intent to fulfill the role of the Transition Facilitator envisioned by the Commission in the market-based proposal.[14] In its October 17, 2018 *ex parte* submission, the CBA affirmed to its customers and to the public its commitment to protecting C-band services in the United States and elsewhere.[15] It expressly declared that it is "not willing to compromise on any element that would limit [its] ability to serve [its] customers"[16] and outlined key features of its proposal (with emphasis provided on ones that are particularly relevant to QVC/HSN's operations):

- ***Continued access to C-band for your services at a comparable Quality of Service for so long as we are licensed to provide C-band services in the continental U.S.***
- Exclusion of Alaska and Hawaii—no transfer of spectrum in these regions

[13] *See* NPRM ¶¶ 66-97.

[14] CBA Notice of Ex Parte Presentation, GN Docket Nos. 17-183 & 18-122, 1 (October 9, 2018).

[15] CBA Notice of Ex Parte Presentation, GN Docket Nos. 17-183 & 18-122 (October 17, 2018).

[16] *Id*. at Attachment.

- ***Retain priority for satellite services in remaining band***

- Work cooperatively with FCC and terrestrial wireless carriers to establish and codify the 5G parameters that would ensure compatibility with fixed satellite services ("FSS")

- ***Responsibility for designing and implementing the technical solution and transition plan to protect incumbent FSS services***

- ***New satellite capacity and innovative technical solutions to maintain supply and Quality of Service***

- Continued full-band, full-arc protection to maintain contracted protection levels and ensure a vibrant news and sports-gathering capability

- ***Commitment to make users whole, including hardware and its installation, equipment rentals (e.g., cranes/lifts), dual illumination of uplinks and reasonable labor costs (stipend), with all transition costs covered by the CBA***[17]

The CBA also states that it "will stand by this commitment, assuming [its] proposal is adopted by the FCC in all material respects."[18]

QVC/HSN applaud the CBA for these public commitments and lend their support for their incorporation into any market-based proposal that the Commission may adopt. However, QVC/HSN request that the Commission further require the Transition Facilitator to guarantee full material performance as follows:

- *Timeline*. The Transition Facilitator must provide displaced C-band users with a detailed timetable that contemplates and targets 100 percent of a C-band user's program distributors (i.e., cable systems, broadcasters, and content delivery companies) being ready to receive the user's content post-transition to minimize potential loss of affiliates. In QVC/HSN's experience, a 36-month timeline to transition its operations and distributors to a new transponder would be woefully insufficient to ensure that all cable MSOs and other distributors are transition-ready, and service is transitioned, uninterrupted. For example, QVC is currently in the process of transitioning its distributors to a new satellite, and four years into the process, the transition is not yet complete. For these reasons, QVC believes that the Commission should require, at a minimum, a 60-month transition period, with dual illumination (i.e., the original transponder remaining live) during the transition period.

[17] *Id.* at Attachment (emphasis added).

[18] *Id.* at Attachment.

- *Mitigated Financial Burden*. In addition to the financial commitment outlined above to make users whole with respect to their own transition costs, the Commission must require that the Transition Facilitator mitigate all transition-related costs in connection with a C-band user's customers, including, for example, costs of filters, costs of repointing dishes, and funding replacement dishes to the extent required from a particular relocation that changes satellite look angle.

- *Commercially Equivalent Transponder Placement*. To the extent a programmer's transponder is in the portion of the C-band being reallocated, any substitute C-band placement, to the maximum extent feasible, should be commercially equivalent to the user's prior C-band transponder to ensure that a substantially similar number of distributors are positioned to receive the user's signal, for example, prioritizing relocation to a transponder on the same satellite so as to maintain polarity and look angle, and co-location in the same "neighborhood" as other like programmers.

- *Transition Facilitation Plans*. Any Transition Facilitation Plan prepared by and filed with the Commission should include input by protected C-band users. QVC/HSN also urge the Commission to employ oversight over the Transition Facilitation Plan process to allow C-band users to identify issues that may have arisen in the course of the negotiation period with prospective licensees.

- *Initial Minimum Spectrum Benchmark*. QVC/HSN urge the Commission, in any Initial Minimum Spectrum Benchmark that the Commission should adopt as part of a market-based mechanism,[19] to reallocate, at most, the 200 MHz of C-band spectrum (including a guard band) for terrestrial wireless use, as specified in the CBA proposal updated as of October 22, 2018.[20] In adopting any such Initial Minimum Spectrum Benchmark, the Commission must ensure that there is sufficient remaining C-band spectrum to accommodate all potentially displaced users with commercially equivalent transponders in accordance with all of its commitments outlined herein, while minimizing interference to the remaining C-band spectrum from new 5G services. The amount of C-band spectrum reallocated both increases the number of transponders eliminated across all C-band satellites and the number of customers displaced, as well as *reducing* the number of remaining transponders on C-band satellites to accommodate displaced C-band customers. Thus, the increase in the CBA reallocation proposal from 160 MHz to 200 MHz not only eliminates two additional transponders, the customers of which must now be accommodated on remaining transponders, but it also eliminates those additional transponders from the inventory of transponders that can be used to accommodate displaced users. QVC/HSN have significant concerns that the proposal is now at the tipping point where any further increase in reallocated spectrum will not only increase the number of C-band content providers affected, but will create a significant risk that

[19] *See* NPRM ¶¶ 79-97.

[20] *C-Band Alliance Increases to 200 MHz Its FCC Proposal for Spectrum Repurposing in the U.S. to Support Nationwide 5G Deployment*, Press Release, C-Band Alliance (October 22, 2018) and *C-Band Alliance Proposal Fact Sheet: October 22 Update*, C-Band Alliance (October 22, 2018). *See also* CBA Notice of Ex Parte Communication, GN Docket Nos. 17-183 & 18-122 (October 23, 2018).

> satellite operators will not have sufficient available capacity to accommodate those providers on commercially equivalent transponders, if at all, and thus urges the Commission to limit any reallocation of C-band spectrum to a maximum of 200 MHz (including a guard band).

QVC/HSN also urge the Commission to adopt an accountability mechanism for the Transition Facilitator to ensure that it has materially satisfied the commitments adopted as part of the market-based proposal.

C. The FCC Should Curb Its Proposal to Expand Fixed Point-to-Multipoint Services in the C-Band

QVC/HSN urge the Commission not to allow new P2MP services in any portion of the spectrum that remains allocated for C-band services, or to restrict the protection of C-band earth stations across the full spectrum band and the visible satellite arc.[21] The flexibility to change frequencies and receive antenna orientations is essential to the value of the C-band satellite capacity on which QVC/HSN and others rely. This flexibility allows restoration of service if an outage affects QVC/HSN's primary space segment and facilitates the resolution of interference issues, as well as enabling the company to take advantage of competition among satellite operators. The requirement to work around new P2MP facilities would undermine the nationwide reach of C-band service, the ability to serve new distributors, and the requirement to modify earth station licenses for any change in operating parameters would impose significant and unjustified regulatory burdens. QVC/HSN agree that "it is illogical to incentivize FSS operators to clear spectrum for 5G mobile use, while also introducing other fixed operations… that will impair access to the spectrum for mobile operations and burden the spectrum remaining to accommodate FSS customers."[22] QVC/HSN urge the Commission to focus on other spectrum

[21] *See* NPRM ¶¶ 37-40 & 116-132.

[22] Joint Comments of Intel, Intelsat and SES at 6.

that is not as intensely used as the C-band to meet any requirements for additional frequencies suitable for P2MP operations.

III. CONCLUSION

Based on the foregoing, QVC/HSN urge the Commission to: (1) acknowledge that C-band content distribution services provided by satellite operators remain essential to video programming services such as those of QVC/HSN; (2) ensure that any market-based approach that may be adopted includes guaranteed protections for displaced C-band content distribution services, provides sufficient time to transition programming distribution platforms without disruption, and reallocates no more than 200 MHz (including a guard band) of C-band spectrum for terrestrial wireless use; and (3) reject the proposed expansion of new fixed P2MP services throughout the C-band.

Respectfully submitted,

QVC, INC. and HSN, INC.

By: */s/ Martin L. Stern*

Martin L. Stern
Robert A. Silverman
Womble Bond Dickinson (US) LLP
1200 Nineteenth Street, NW, Suite 500
Washington, DC 20036
202-467-6900
Counsel for QVC, Inc. and HSN, Inc.

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